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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,759	07/23/2001	Lee C. Harrison	3445 US	2504

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EXAMINER	
LEE, ANDREW CHUNG CHEUNG	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/909,759	HARRISON ET AL.	
	Examiner	Art Unit	
	Andrew C. Lee	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4 and 6-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *10* is/are allowed.

6)☒ Claim(s) *1,3,4 and 6-8* is/are rejected.

7)☒ Claim(s) *9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

Regarding claim 1, lines 5 – 6, the term "data signals composed of data frames each including a packet payload" is very ambiguous. The word "each" is not clear to which it refers to "data signals" or "data frames". It is suggested the term "data signals composed of data frames each including a packet payload" to be changed to "data signals composed of data frames, each of said data frames including a packet payload".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Travostino et al. (US 6996085 B2) in view of Singhal et al. (US 6633761).

Regarding Claims **1**, **6**, Travostino et al. disclose the limitation of a system for receiving data signals (recited "wireless communication system 300" as system, "protocol message" as data signals; Fig. 3, column 5, lines 18 – 31), said system comprising: a plurality of dumb nodes (recited "the AP devices" as a plurality of dumb nodes; column 2, lines 38 – 40), each dumb node comprising a radio receiver including

a baseband processor for accepting a spread spectrum signal (recited "baseband transceiver logic with associated HCI firmware for sending and receiving protocol messages over the wireless medium" as a radio receiver including a baseband processor; column 5, lines 60 – 62) and for providing therefrom serial data signals composed of data frames each including a packet payload (recited "wireless protocol message includes an upper layer payload encapsulated" as providing therefrom serial data signals composed of data frames each including a packet payload; column 7, lines 29 – 33); a decoder (Fig. 4, element 401 "PPPoE control protocol logic"; element 412 "PPP logic"; as decoder); a plurality of physical links (recited "PPP/PPPoE communication connections" as plurality of physical links; column 9, lines 47 – 50), each phyical link (recited "over a pre-established PPP/PPPoE communication connection as physical link; Fig. 4, connection indication line between element 306 TAP device and element 307 BE device, column 7, lines 37 – 38), having a first end at said radio receiver (recited "baseband transceiver logic with associated HCI firmware" as a radio receiver; column 5, lines 60 – 62; Fig. 4, element 306 TAP device) and a second end at said decoder (Fig. 4, element 401 "PPPoE control protocol logic"; element 412 "PPP logic of BE device 307"; as decoder) for conveying said serial data signals from said radio receiver to said decoder (column 7, lines 34 – 38); an encapsulator at said first end for encapsulating said data frames within Ethernet frames to be transmitted across the physical link (recited "PPPoE control protocol logic" as encapsulator at said first end for encapsulating said data frames within Ethernet frames; Fig. 4, element 404 PPPoE of element 306 TAP device; column 5, lines 66 –

68; column 7, lines 39 – 45); A de-encapsulator at said second end (Fig. 8, elements 806, 808, recited BE device as second end) for receiving said Ethernet frames from said link and de-encapsulating said Ethernet frames to recover said data frames (recited the logic decapsulates the wireless layer 2 packet" and "element 410 PPPoE control protocol logic of element 307 BE device , Fig 4" as A de-encapsulator at said second end; Fig. 8, column 8, lines 13 – 21); an intelligent node (Fig. 4, element 307 BE device as intelligent node) including said de-encapsulator (recited "element 410 PPPoE control protocol logic of element 307 BE device , Fig 4" as a de-encapsulator; Fig. 8, elements 806, 808), said decoder (Elements 401, 412, 228, 230, 232 of BE device 307), a protocol processor (elements 240 "IP logic", 246 "ARP logic"; 242 "DHCP logic";) for developing addressed Ethernet data packets from said data frames, and a bridge for coupling said addressed Ethernet data packets to a network (Fig. 4, element 242 DHCP logic, column 6, lines 40 – 42, IP address; column 8, lines 1 – 12, element 108, host computer as a network). Travostino et al. do not disclose explicitly a radio receiver including a baseband processor for accepting a spread spectrum signal. Singhal et al. disclose the limitation of a radio receiver including a baseband processor for accepting a spread spectrum signal (recited "802.11 addresses frequency hopping spread spectrum radio ... Bluetooth is a specification of short range wireless connectivity" as a radio receiver including a baseband processor for accepting a spread spectrum signal; column 1, lines 22 – 28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Travostino et al. to include a radio receiver including a baseband processor for accepting a spread

spectrum signal such as that taught by Singhal et al. in order to provide methods, systems, and computer program instructions for enabling seamless connectivity and roaming with short-range wireless computing devices (as suggested by Singhal et al., see column 2, lines 55 – 58).

4. Claims 3, 7, 4, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Travostino et al. (US 6996085 B2) and Singhal et al. (US 6633761) as applied to claims 1, 6 above, and further in view of Rusu et al. (US 6111880).

Regarding claims 3 and 7, Travostino et al. disclose the limitation of a system for receiving data signals (recited "wireless communication system 300" as system, "protocol message" as data signals; Fig. 3, column 5, lines 18 – 31). Travostino et al. and Singhal et al. do not disclose explicitly claimed wherein said encapsulator includes means for tagging said data frames before they are encapsulated within Ethernet packets. Rusu et al. disclose the limitation of claimed wherein said encapsulator includes means for tagging said data frames before they are encapsulated within Ethernet packets (recited "the Ethernet interface subsystem provides lookup of the tag" as means for tagging said data frames before they are encapsulated within Ethernet packets; column 7, lines 2 – 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Travostino et al. and Singhal et al. to include claimed wherein said encapsulator includes means for tagging said data frames before they are encapsulated within Ethernet packets such as that taught by Rusu et al. in order to provide a hybrid packet/cell switching, linking, and control

system and methodology for sharing a common internal cell format that supports multiple protocol operations to support both high speed Ethernet and ATM (as suggested by Rusu et al., see column 1, lines 25 – 29).

Regarding claims 4 and 8, Travostino et al. disclose the limitation of a system for receiving data signals (recited "wireless communication system 300" as system, "protocol message" as data signals; Fig. 3; column 5, lines 18 – 31). Travostino et al. and Singhal et al. do not disclose explicitly a system as in claimed wherein said encapsulator inserts at least one of said data frames followed by padding data into a message section of one of said Ethernet frames. Rusu et al. disclose the limitation of a system as in claimed wherein said encapsulator inserts at least one of said data frames followed by padding data into a message section of one of said Ethernet frames (recited "providing cell padding" as inserts at least one of said data frames followed by padding data into a message section; column 7, lines 4 – 13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Travostino et al. and Singhal et al. to include system as in claimed wherein said encapsulator inserts at least one of said data frames followed by padding data into a message section of one of said Ethernet frames such as that taught by Rusu et al. in order to provide a hybrid packet/cell switching, linking, and control system and methodology for sharing a common internal cell format that supports multiple protocol operations to support both high speed Ethernet and ATM (as suggested by Rusu et al., see column 1, lines 25 – 29).

Allowable Subject Matter

5. Claim 10 is allowed over prior art. Prior art of record, in single or in combination, do not disclose explicitly receiving a spread-spectrum signal containing message data and converting said spread spectrum signal into serial data frames conforming to a host controller interface format.

6. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3, 4, 6, 7, 8, 9, 10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACL

Oct 20, 2006

RICKY Q. NGO
SUPERVISORY PATENT EXAMINER